

## REMARKS

Restriction to one of Groups I-LI was required under 35 U.S.C. § 121 and § 372.

### Election in Response to Restriction Requirement

In response to the Restriction Requirement, the Applicants elect Group III. Group III includes Claims 1-18 and 27-29, in so far as they encompass an isolated polynucleotide encoding the polypeptide of SEQ ID NO: 6, the polypeptide itself and methods of using these molecules. SEQ ID NO: 6 is the amino acid sequence of h35-L1.

### Cancellation of Certain Non-Elected Claims

Applicants have canceled Claims 19-26 solely as being drawn to a non-elected invention. The cancellation of these claims has been made without prejudice to pursuing them in one or more divisional applications.

### Traversal of Restriction Requirement between Groups I through XV

Notwithstanding the foregoing election, Applicants traverse the requirement with respect to the separation of Groups I through XV into separate inventions because these groups do relate to a single general inventive concept as envisaged by PCT Rule 13.1 and Rule 13.2. The Examiner stated that each of the different polynucleotide sequences and corresponding amino acid sequences related to a separate invention. In particular, the Examiner stated that the 35-LM molecules lack either a common structural property which distinguishes them as a group from structurally related compounds of the prior art or which provides them with a common utility which is lacking in the prior art molecules. However, this statement is not an accurate description of the recited 35-LM molecules.

The Applicants wish to point out that the claimed invention is based on the discovery that the 35-LM molecules are a family of structurally-related immunoregulatory signaling molecules expressed in hematopoietic cells. The Examiner's interpretation of the subject matter is inconsistent with the disclosure of the invention, which shows that these molecules are structurally related, as shown in the alignments in Figures 2 and 5 of the specification. In this regard, the Applicants respectfully point out that the molecules have up to 91% sequence identity in the Ig domain and therefore are structurally-related molecules. Moreover, the molecules share a common utility in connection with their use as diagnostic markers, targets for cell therapy, and any targets in order to modulate an immune response and hematopoietic cell function or activity.

The Applicants attach the following three post-priority date references, which disclose the structure and function of the 35-LM (referred to as CMRF35 and also known as CD300) family members.

Exhibit 1: Leukocyte and stromal cell molecules: the CD markers, Zola, H. Swart, B. Nicholson, E. and Voss, E. Eds. 2007 John Wiley and Sons, Inc., Hoboken, New Jersey, pp. 481-482.

The passage at page 481, column 2, lines 27-28 states:

"CD300a and c show 80% amino acid identity in the Ig domains..."

Exhibit 2: Clark, G.J. et al. 2003 "The CMRF-35 family of molecules- a new leucocyte receptor complex on chromosome 17" *Current Trends in Immunol* 5:55-64.

The passage at page 56, column 1, lines 9-20 states:

"CMRF-35A and CMRF-35H are cell surface glycoproteins that are encoded by independent but closely related genes on human chromosome 17q22-24. Both molecules are members of the Ig superfamily and each have a single V-like Ig domain, a membrane proximal region and a cytoplasmic region. The Ig domains of the CMRF-35A and CMRF-35H molecules show 80% identity at the amino acid level. There are two conserved motifs for N-linked glycosylation in the Ig domain of both CMRF-35A and CMRF-35H."

Exhibit 3: Clark G.J. et al. 2007 "Monocytes immunoselected via the novel monocytes specific molecule, CD300e, differentiate into active migratory dendritic cells" *J Immunother* 30:303-311.

The passage at page 303, paragraph bridging columns 1 and 2 states:

"The CD300 family includes 6 molecules with the ability to deliver triggering or inhibitory signals to the cells on which that are expressed."

The conclusions set forth in these articles further support Applicants' position that members of the CMRF-35 family have both structural and functional features in common. Thus, the nucleotide and amino acid sequences of the claimed SEQ ID NOs do indeed relate to a single invention. Accordingly, the restriction requirement between inventions I through XV should be withdrawn.

#### Objection to Markush Groups

The Examiner indicated that the Markush groups of Claims 1, 6 and 20 were improper because the plurality of sequences recited in these claims lack a common utility which is based upon a shared structural feature lacking from the prior art. As discussed above, these sequences,

in fact, do share such a common utility. Accordingly, the Markush groups of Claims 1 and 6 are believed to be proper. Claim 20 has been canceled as being directed to a non-elected invention.

**Request for Inclusion of the Mouse Ortholog of Human 35-L1 in the Elected Group**

In the event the Applicants' traversal of the entire restriction requirement between Groups I through XV is unsuccessful, Applicants wish to partially traverse the requirement insofar as the mouse ortholog of h35-L1 should be included as a part of the elected group. Referring to Tables 1 and 2 of the Specification on pages 7-8, the mouse ortholog of the elected h35-L1 is m35f. The amino acid sequence of m35f is represented by SEQ ID NO:22, and the polynucleotide encoding this polypeptide is represented by SEQ ID NO:21. Because these sequences are orthologs of each other, they are quite closely related to each other in structure and function. Thus, they form a single general inventive concept under PCT Rule 13.1, and should be included as a single group.

**CONCLUSION**

In view of the foregoing, Applicants respectfully request that this application be passed to examination. If any points remain that can be resolved by telephone, the Examiner is invited to contact the undersigned at the below-given telephone number.

No fees are believed due. However, please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By: 

Raymond D. Smith  
Registration No. 55,634  
Agent of Record  
Customer No. 20995  
(805) 547-5580